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10/748,901

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Bo-Nam Lee

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EXAMINER

PHAM, TUAN

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/748,901	<b>Applicant(s)</b> LEE, BO-NAM	
	<b>Examiner</b> TUAN A. PHAM	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Applicant's remark, filed on 02/11/2008, with respect to the rejection(s) of claim(s) 1-15 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Yamadera et al. (U.S. Pub. No.: 2003/0064757) in view of Tashiro et al. (U.S. Patent No.: 6,975,836).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadera et al. (U.S. Pub. No.: 2003/0064757, hereinafter, "Yamadera") in view of Tashiro et al. (U.S. Patent No.: 6,975,836, "Tashiro").**

**Regarding claim 1**, Yamadera teaches a method for displaying reception sensitivity on a display screen of a multi-functional mobile terminal with at least two communication functions, comprising the steps of (see figures 5A-5E, 6A-6D, radio reception level cellular mode and radio reception level GPS mode):

a) checking a reception sensitivity of a reception signal for a prescribed

communication function among the communication functions (see figures 5A-5D, controller 30 monitor the radio reception level receive at the mobile between the cellular mode and GPS mode, [0046, 0056-0057]), and displaying a reception sensitivity indicator for indicating the reception sensitivity of the prescribed communication function on the display screen (see figures 5A-5D, third display area 19 display the level of radio wave reception of cellular mode, [0046, 0057]); and

b) if an operation mode of a communication function other than the prescribed communication function is enabled (see figures 6A-6D, the user want to use the GPS function, [0056-0057, 0067-0068]), checking reception sensitivity of a reception signal for the communication function corresponding to the enabled operation mode (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056- 0057, 0067-0068]), and displaying a reception sensitivity indicator for indicating the reception sensitivity of the communication function corresponding to the enabled operation mode, instead of displaying the reception sensitivity indicator of the prescribed communication function, wherein the reception sensitivity indicator corresponding to the enabled operation mode has the same form from the reception sensitivity indicator of the prescribed communication function, on the display screen (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056- 0057, 0067-0068], it is clearly seen that level of radio wave reception indicator of both cellular and GPS are the same form when displaying on the display 19).

It should be noticed that Yamadera fails to teach the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode. However, Tashiro teaches the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode (see figure 5, GPS reception sensitivity indicator 104 and 103, display reception sensitivity indicator of mobile 106, they are showing a different form, col.7, ln.49-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tashiro into view of Yamadera in order to provide the information to the user which function is currently support on the device.

**Regarding claim 2**, Yamadera further teaches if the enabled operation mode is terminated, returning to the step (a) of displaying the reception sensitivity indicator of the prescribed communication function (see [0067-0068], it is clearly seen that the user stop using the GPS mode, then switch back to cellular mode and the display screen 19 will display the level of radio reception of cellular mode).

**Regarding claim 3**, Yamadera teaches a method for displaying reception sensitivity on a display screen of a multi-functional mobile terminal having a mobile communication function for establishing mobile communication over a mobile telecommunication network and a GPS (Global Positioning System) reception function for receiving a GPS signal from a GPS satellite (see figures 5A-5E, 6A-6D, radio reception level cellular mode and radio reception level GPS mode) comprising the steps of:

a) checking a reception sensitivity of a signal received from the mobile telecommunication network (see figures 5A-5D, controller 30 monitor the radio reception level receive at the mobile between the cellular mode and GPS mode, [0046, 0056-0057]), and displaying a mobile communication reception sensitivity indicator for indicating a mobile communication reception sensitivity on the display screen (see figures 5A-5D, third display area 19 display the level of radio wave reception of cellular mode, [0046, 0057]); and

b) if a GPS mode is enabled (see figures 6A-6D, the user want to use the GPS function, [0056-0057, 0067-0068]), checking a reception sensitivity of the GPS signal (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056-0057, 0067-0068]), and displaying a GPS reception sensitivity indicator for indicating the GPS reception sensitivity instead of displaying the reception sensitivity indicator of the mobile communication function, wherein the reception sensitivity indicator corresponding to the GPS operation mode has the same form from the reception sensitivity indicator of the mobile communication function, on the display screen (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056- 0057, 0067-0068], it is clearly seen that level of radio wave reception indicator of both cellular and GPS are the same form when displaying on the display 19).

It should be noticed that Yamadera fails to teach the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of

the GPS mode. However, Tashiro teaches the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode (see figure 5, GPS reception sensitivity indicator 104 and 103, display reception sensitivity indicator of mobile 106, they are showing a different form, col.7, ln.49-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tashiro into view of Yamadera in order to provide the information to the user which function is currently support on the device.

**Regarding claim 7**, Yamadera teaches a method for displaying reception sensitivity on a display screen of a multi-functional mobile terminal with at least two communication functions, comprising the steps of satellite (see figures 5A-5E, 6A-6D, radio reception level cellular mode and radio reception level GPS mode):

a) checking a reception sensitivity of a reception signal for a prescribed communication function among the communication functions (see figures 5A-5D, controller 30 monitor the radio reception level receive at the mobile between the cellular mode and GPS mode, [0046, 0056-0057]), and displaying a reception sensitivity indicator for indicating the reception sensitivity of the prescribed communication function on the display screen (see figures 5A-5D, third display area 19 display the level of radio wave reception of cellular mode, [0046, 0057]); and

b) upon receiving a user request to change the reception sensitivity indicator (see figures 6A-6D, the user want to use the GPS function, [0056-0057, 0067-0068]), checking a reception sensitivity of a reception signal for a communication function other

than the prescribed communication function among the communication functions (see figures 6A-6D, the user want to use the GPS function, the mobile will check and display the GPS signals on the display area 19, [0056-0057, 0067-0068]), and displaying a reception sensitivity indicator for indicating the reception sensitivity of the other communication function, instead of displaying the reception sensitivity indicator of the prescribed communication function, wherein the reception sensitivity indicator corresponding to the enabled operation mode has the same form from the reception sensitivity indicator of the prescribed communication function, on the display screen (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056-0057, 0067-0068], it is clearly seen that level of radio wave reception indicator of both cellular and GPS are the same form when displaying on the display 19).

It should be noticed that Yamadera fails to teach the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode. However, Tashiro teaches the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode (see figure 5, GPS reception sensitivity indicator 104 and 103, display reception sensitivity indicator of mobile 106, they are showing a different form, col.7, ln.49-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tashiro into view of Yamadera in order to provide the information to the user which function is currently support on the device.

**Regarding claim 9**, Yamadera further teaches a user request to change the reception sensitivity indicator of the other communication function while displaying the reception sensitivity indicator of the other communication function, returning to the step (a) of displaying the reception sensitivity indicator of the prescribed communication function (see [0067-0068], figures 5A-5D, 6A-6D, it is clearly seen that the use stop using the GPS mode and go back to cellular mode, the display 19 will display the reception level of the cellular).

**Regarding claim 10**, Yamadera teaches a method for displaying reception sensitivity on a display screen of a multi-functional mobile terminal having a mobile communication function for establishing mobile communication over a mobile telecommunication network and a GPS (Global Positioning System) reception function for receiving a GPS signal from a GPS satellite (see figures 5A-5E, 6A-6D, radio reception level cellular mode and radio reception level GPS mode): comprising the steps of:

a) checking a reception sensitivity of a signal received from the mobile telecommunication network (see figures 5A-5D, controller 30 monitor the radio reception level receive at the mobile between the cellular mode and GPS mode, [0046, 0056-0057]), and displaying a mobile communication reception sensitivity indicator for indicating a mobile communication reception sensitivity on the display screen (see figures 5A-5D, third display area 19 display the level of radio wave reception of cellular mode, [0046, 0057]); and

b) upon receiving a user request to change the reception sensitivity indicator while displaying the mobile communication reception sensitivity indicator (see figures 6A-6D, the user want to use the GPS function, [0056-0057, 0067-0068]), checking a reception sensitivity of the GPS signal (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056- 0057, 0067-0068]), and displaying a GPS reception sensitivity indicator for indicating the GPS reception sensitivity instead of displaying the reception sensitivity indicator of the mobile communication function, wherein the reception sensitivity indicator corresponding to the GPS operation mode has the same form from the reception sensitivity indicator of the mobile communication function, on the display screen (see figures 6A-6D, the user want to use the GPS function, the controller 30 will monitor and display the level of radio wave reception of GPS on the display area 19, [0056- 0057, 0067-0068], it is clearly seen that level of radio wave reception indicator of both cellular and GPS are the same form when displaying on the display 19).

It should be noticed that Yamadera fails to teach the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode. However, Tashiro teaches the reception sensitivity indicator of cellular mode has a different form from the reception sensitivity indicator of the GPS mode (see figure 5, GPS reception sensitivity indicator 104 and 103, display reception sensitivity indicator of mobile 106, they are showing a different form, col.7, ln.49-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the teaching of Tashiro into view of Yamadera in order to provide the information to the user which function is currently support on the device.

**4. Claims 4, 6, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadera et al. (U.S. Pub. No.: 2003/0064757, hereinafter, "Yamadera") in view of Tashiro et al. (U.S. Patent No.: 6,975,836, "Tashiro") as applied to claims 3 and 10 above, and further in view of Aholainen et al. (US Patent No.: 7,102,640, hereinafter, "Aholainen").**

Regarding claims 4 and 11, Yamadera and Tashiro, in combination, fails to teach the multi-functional mobile terminal further having a Bluetooth communication function for executing Bluetooth communication, further comprises the steps of: if a Bluetooth mode is enabled, checking a reception sensitivity of a reception signal for the Bluetooth communication, and displaying a Bluetooth reception sensitivity indicator for indicating the Bluetooth reception sensitivity, instead of displaying the mobile communication reception sensitivity indicator, wherein the Bluetooth reception sensitivity indicator has a different form from the mobile communication reception sensitivity indicator, on the display screen. However, Aholainen teaches the multi-functional mobile terminal further having a Bluetooth communication function for executing Bluetooth communication, further comprises the steps of (see col.8, ln.12-18): if a Bluetooth mode is enabled, checking a reception sensitivity of a reception signal for the Bluetooth communication, and displaying a Bluetooth reception sensitivity indicator

for indicating the Bluetooth reception sensitivity, instead of displaying the mobile communication reception sensitivity indicator, wherein the Bluetooth reception sensitivity indicator has a different form from the mobile communication reception sensitivity indicator, on the display screen (see 1A, col.7, 6-64, col.13, ln.12-18, signal strength indicator 170, it is clearly seen that the signal strength indicator 170 has a different form from the cellular reception signal indicator as show in Yamadera at figure 5A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Aholainen into view of Yamadera and Tashiro in order to provide the information to the user which function is currently support on the device.

**Regarding claim 6**, after combine, Yamadera further teaches returning to the step (a) of displaying the mobile communication reception sensitivity indicator after the GPS mode has been terminated (see [0067-0068], it is clearly seen that when the user press the end key 8 to return to the standby mode). Aholainen teaches returning to the step (a) of displaying the mobile communication reception sensitivity indicator after the Bluetooth mode has been terminated (see 1A, col.7, 6-64, col.8, ln.12-18, col.13, ln.12-18, It is clearly seen that the mobile device 100 is a dual mode, if the mobile 100 is not within the Bluetooth range, the mobile 100 will operate as a cellular mode and the cellular reception signal indicator of the mobile 100 will display as show in Yamadera at figure 5A).

**Regarding claim 15**, after combine, Yamadera further teaches upon receiving a user request to change the reception sensitivity indicator while displaying the GPS reception sensitivity indicator, returning to the step (a) of displaying the mobile communication reception sensitivity indicator (see [0067-0068], it will take a second when the user press the end key 8 to return to the standby mode). Aholainen teaches returning to the step (a) of displaying the mobile communication reception sensitivity indicator after the Bluetooth mode has been terminated (see 1A, col.7, 6-64, col.8, ln.12-18, col.13, ln.12-18, It is clearly seen that the mobile device 100 is a dual mode, if the mobile 100 is not within the Bluetooth range, the mobile 100 will operate as a cellular mode and the cellular reception signal indicator of the mobile 100 will display as show in Yamadera at figure 5A).

**5. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadera et al. (U.S. Pub. No.: 2003/0064757, hereinafter, "Yamadera") in view of Tashiro et al. (U.S. Patent No.: 6,975,836, "Tashiro") as applied to claims 3 and 10 above, and further in view of Lee (US Patent No.: 6,434,484).**

**Regarding claims 5 and 12**, Yamadera and Tashiro, in combination, fails to teach the GPS reception sensitivity indicator displays a reception sensitivity level corresponding to a number of GPS satellites found by the GPS signal. However, Lee teaches the GPS reception sensitivity indicator displays a reception sensitivity level corresponding to a number of GPS satellites found by the GPS signal (see figure 4, col.4, ln.18-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lee into view of Yamadera and Tashiro in order to provide to the user which satellite is currently in use in the mobile device.

**6. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadera et al. (U.S. Pub. No.: 2003/0064757, hereinafter, "Yamadera") in view of Tashiro et al. (U.S. Patent No.: 6,975,836, "Tashiro") as applied to claims 7 and 10 above, and further in view of Weiss et al. (US Patent No.: 6,078,816).**

**Regarding claims 8 and 14**, Yamadera teaches returning to the step (a) of displaying the mobile communication reception sensitivity indicator when the user terminate the GPS reception sensitivity indicator has been displayed (figure 5A-5d, 6A-6d, [0067-0068], it will take a second when the user press the end key 8 to return to the standby mode). Yamadera and Tashiro, in combination, fails to teach the controller control the operation of device after a predetermined time has elapsed. However, Weiss the controller control the operation of device after a predetermined time has elapsed (see col.3, ln.20-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Weis into view of Yamadera and Tashiro in order to provide a high quality signal for the device.

**7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadera et al. (U.S. Pub. No.: 2003/0064757, hereinafter, "Yamadera") in view of Tashiro et al. (U.S. Patent No.: 6,975,836, "Tashiro") and further in view of Aholainen et al. (US Patent No.: 7,102,640, hereinafter, "Aholainen") as applied to claim 10 above, and further in view of Weiss et al. (US Patent No.: 6,078,816).**

**Regarding claim 13**, Yamadera and Aholainen teaches returning to the step (a) of displaying the mobile communication reception sensitivity indicator when the user terminate the Bluetooth reception sensitivity indicator has been displayed (see 1A, col.7, 6-64, col.8, ln.12-18, col.13, ln.12-18, It is clearly seen that the mobile device 100 is a dual mode, if the mobile 100 is not within the Bluetooth range, the mobile 100 will operate as a cellular mode and the cellular reception signal indicator of the mobile 100 will display as show in Yamadera at figure 5A). Yamadera, Tashiro, and Aholainen, in combination, fails to teach the controller control the operation of device after a predetermined time has elapsed. However, Weiss the controller control the operation of device after a predetermined time has elapsed (see col.3, ln.20-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Weis into view of Yamadera, Tashiro, and Aholainen in order to provide a high quality signal for the device.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/TUAN A PHAM/  
Examiner, Art Unit 2618

Tuan Pham